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Effective endoscopic ultrasound-guided transrectal drainage of a perianal abscess

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Approximately 90% of all idiopathic perianal abscesses occur due to infection of the cryptoglobular glands[1,2]. The purpose of drainage is to decompress the abscess cavity in order to prevent progressive inflammation, which could result in potentially life-threatening complications[3].

A 31-year-old Japanese man was admitted to our hospital with severe anal pain and high fever. Computed tomography identified a perianal abscess and fluid collections near the right buttock (FIGURE 1). A surgical incision was made from the right buttock; however, drainage was poor because the fistula cavity was deep and long, and the symptoms worsened. We planned an endoscopic ultrasound (EUS)-guided perianal abscess drainage via the rectum. The drainage was performed using a convex EUS scope (GF-UCT260; Olympus Corp., Tokyo, Japan). The abscess was punctured with a 19-gauge needle (EZ Shot 3 Plus®; Olympus Corp.) via the rectum at 75 mm from the anal verge. Fluid was aspirated to confirm that the puncture location was suitable, and the purulent material was collected (FIGURE 2a). A 0.025-inch guidewire was inserted through the needle and coiled in the abscess cavity (FIGURE 2b). The puncture tract was dilated with a 6 mm balloon dilator (REN®; Kaneka Medical Co., Tokyo, Japan). Thereafter, a double-pigtail plastic stent (DPPS; 7-Fr, 4 cm long) (Through & Pass®; Gadelius Medical K.K., Tokyo, Japan) was passed through the dilated tract and into the abscess (FIGURES 2c, 2d, and 3); a large amount of purulent drainage started to flow into the colon soon after. This procedure was performed without any complications. On day 25 after drainage, the patient felt uncomfortable due to the migration of the DPPS towards the anus; computed tomography revealed a marked reduction in the abscess. We hypothesized that as the abscess space decreased, the DPPS moved to the anal side (FIGURE 4). We carefully pulled the DPPS using grasping forceps under endoscopic guidance (E-VIDEO). We plan to perform an anal fistula surgery later, because it significantly reduces recurrences, persistent abscesses/fistulas, or the need for a repeat surgery[4].

FIGURE 1. A 31-year-old Japanese man was admitted to our hospital with severe anal pain and high fever.
Coronal (a) and axial (b) abdominal computed tomography identify perirectal abscesses (asterisk) and drainable fluid collections near the right buttock (a; arrow).

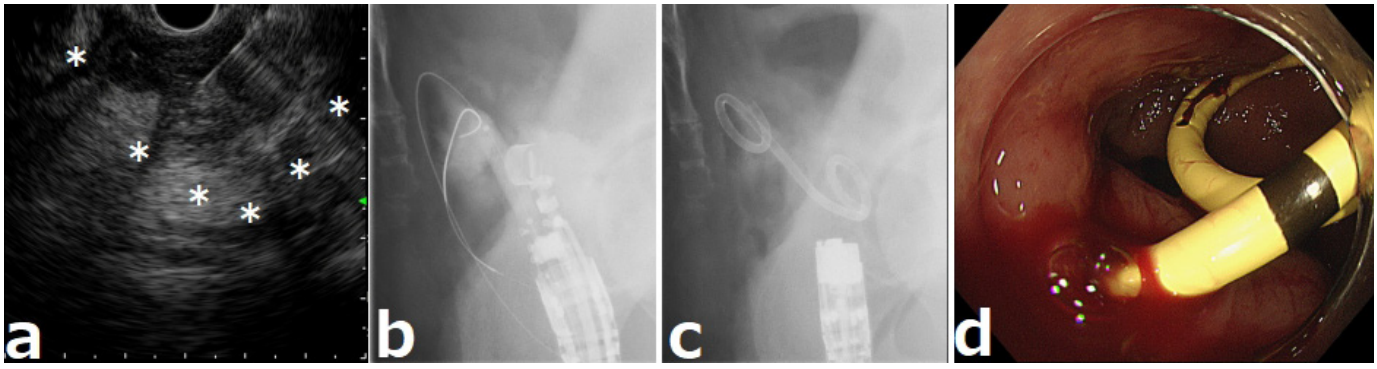

FIGURE 2. Procedure for EUS-guided perianal abscess drainage via the rectum.
a: the abscess is punctured with a 19-gauge needle via the rectum at 75 mm from the anal verge; the fluid is aspirated to confirm that the puncture location is suitable. b: a 0.025-inch guidewire is inserted through the needle and coiled in the abscess cavity. c: a double-pigtail plastic stent (DPPS; 7 Fr, 4 cm long) is passed through the dilated tract and placed into the abscess cavity. d: after DPPS placement, a large amount of purulent drainage begins to flow into the colon.

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E-VIDEO: https://youtu.be/GsZRSGGbjHE

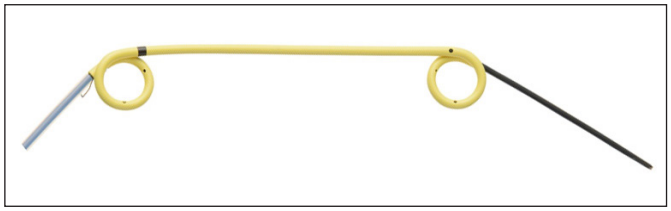

FIGURE 3. The plastic stent is a 7-Fr, 4 cm long double-pigtail plastic stent (Through & Pass®; Gadelius Medical K.K., Tokyo, Japan).

EUS-guided perianal abscess drainage is more effective and safer than surgical or percutaneous drainage, because it has a minimal risk of injury to the nearby blood vessels and of material leakage at the puncture site[5]. Because the drainage tube can be placed inside the rectum, it is a useful method for long-term drainage and has a reduced risk of complications.

Authors' contribution

Soga K: conceptualization, data curation, formal analysis, investigation, methodology, project administration, resources, supervision, validation, visualization, and writing the original draft. Soga K and Majima A: review and editing.

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FIGURE 4. The patient felt uncomfortable due to the migration of the double-pigtail plastic stent (DPPS) towards the anus. Abdominal computed tomography reveals a marked reduction in the abscess, and the DPPS is noted to have moved to the anal side (arrow) at 25 days after the drainage.

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